



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER OF PATENTS AND TRADEMARKS  
Washington, D.C. 20231  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/628,503	07/28/2000	Myoung Jun Song	K-191	3785

34610 7590 02/13/2003

FLESHNER & KIM, LLP  
14500 AVION PARKWAY, SUITE 125  
CHANTILLY, VA 20151

EXAMINER

NGUYEN, JIMMY H

ART UNIT PAPER NUMBER

2673

DATE MAILED: 02/13/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/628,503

Applicant(s)

SONG, MYOUNG JUN

Examiner

Jimmy H. Nguyen

Art Unit

2673

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 28 July 2000.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-5,8-19,22-24 and 26-43 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 17-19 is/are allowed.
- 6) ☒ Claim(s) 1-5,8-16,22-24,26 and 29-43 is/are rejected.
- 7) ☒ Claim(s) 27 and 28 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 10.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

Art Unit: 2673

### **DETAILED ACTION**

1. This Office Action is made in response to applicant's amendment filed on 11/27/2002 (entered into the file wrapper as Paper No. 11). The amendment overcomes the drawing objection, the claim objections and the rejection under 35 USC 112, first paragraph, as set forth in the last Office Action. Claims 1-5, 8-19, 22-24 and 26-43 are currently pending in the application. An action follows below:

#### ***Information Disclosure Statement***

2. The information disclosure statement (IDS) submitted on 10/03/02 (entered as Paper No. 10) is considered by the examiner.

#### ***Claim Objections***

3. Claim 1 is objected to because of the following informalities: line 4, "and;" should be changed to -- ; -- due to a typo. Appropriate correction is required.

4. Claim 27 is objected to under 37 CFR 1.75(a) because this claim meets the requirement 112/2d, i.e., the metes and bounds are determinable, however, "R video signal, G video signal, B video signal, and vertical sync signal" (see lines 8-9) should be changed to -- said R video signal, said G video signal, said B video signal, and said vertical sync signal -- , due to the sufficient antecedent basis for these limitations in the claim. It is in the best interest of the patent community that applicant, in his/her normal review and/or rewriting of the claims, to take into consideration these editorial situations and make changes as necessary.

5. Claims 28 and 37-41 are objected to because of the following informalities: line 1, "apparatus" should be changed to -- method -- because they depends on the method claims. Appropriate correction is required.

***Claim Rejections - 35 USC § 102***

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

7. Claims 1-3, 8, 9, 11, 12, 22-24, 26, 30, 31, 37, 39 and 42 are rejected under 35 U.S.C. 102(e) as being anticipated by Wu (USPN: 5,986,636).

As per claims 1-3, 8, 12, 23, 24 and 26, the claimed invention reads on Wu as follows: Wu discloses an apparatus and an associate method for interfacing video information in a computer system, the apparatus comprising a main body or a computer (a computer 1, fig. 5) for outputting a video signal through video signal line (R, G, B'), a horizontal sync signal (Hs), a vertical sync signal (Vs) (col. 1, line 66 through col. 2, line 2, col. 4, lines 15-16), and display type information (sets of display parameters, col. 5, lines 54-61) including a display code (an information packet including addresses and data, col. 7, lines 10-20) that designates a display type, through a communication line or a display data channel (a bus 70) (further see figs. 5 and

Art Unit: 2673

6B, col. 6, lines 11-28), and a monitor (60) for detecting the display type of the corresponding video signal and for displaying the video signal (see fig. 5, col. 6, lines 10-38). The elements and the steps in the claims above are read in the reference.

Regarding to claims 9, 30, 31, 37, 39 and 42, Wu further discloses a display code including a recognition code (the address of information) and a corresponding data (data of information), see col. 7, lines 10-20. These claims are therefore rejected for the reason as set forth above.

Regarding to claims 11 and 22, Wu further discloses the display information comprising a number of dots for a horizontal period, a number of backporches for the horizontal period, a number of horizontal lines for a vertical period and a number of horizontal lines of a backporch for the vertical period code (col. 5, lines 23-34). These claims are therefore rejected for the reason as set forth above.

### ***Claim Rejections - 35 USC § 103***

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wu as applied to claim 9 above.

As per claim above, Wu further discloses the recognition code (i.e., the address of information) following a start bit (col. 7, lines 11-13), but does not disclose expressly how many bits included in the recognition code. Accordingly, the difference between the invention of claim

Art Unit: 2673

above and the Wu reference is the recognition code composed of two bits. However, absent a showing of criticality it would have been within the level of skill in the art and obvious to one having ordinary skill at the time of the invention was made to engineering design any suitable number of bits of the recognition code as desired as was judicially recognized in re Rose, 105 USPQ 237 (CCPA 1955) and in re Reven, 156 USPQ 679 (CCPA 1968). Furthermore, it is to be appreciated that any suitable number of bits of the recognition code may be employed to carry out the invention, and that one skilled in the art at the time of the invention was made to recognize that the motivation for doing so is to transmit and to receive the necessary information in a short period of time, thereby increasing the processing speed.

10. Claims 4, 5, 13-16, 29, 32-36, 38, 40, 41 and 43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wu, and further in view of Arai et al (USPN: 5,457,473), hereinafter Arai.

As per claims 4, 5 and 14, Wu discloses an apparatus and an associate method for interfacing video information in a computer system, the apparatus comprising a main body or a computer (a computer 1, fig. 5) for outputting a video signal through video signal line (R, G, B'), a horizontal sync signal (Hs), a vertical sync signal (Vs) (col. 1, line 66 through col. 2, line 2, col. 4, lines 15-16), and display type information (sets of display parameters, col. 5, lines 54-61) including a display code (an information packet including addresses and data, col. 7, lines 10-20) that designates a display type, through a communication line or a display data channel (a bus 70) (further see figs. 5 and 6B, col. 6, lines 11-28), and a monitor (60) for detecting the display type of the corresponding video signal and for displaying the video signal (see fig. 5, col. 6, lines 10-38). Accordingly, the difference between the invention of the claims above and the Wu reference

Art Unit: 2673

is that the claimed invention recites the display type information carried by one of the video signal, the horizontal sync signal and a vertical signal, while the Wu reference teaches the display type information carried by a communication line (70).

However, Arai discloses a related apparatus comprising a computer (1a) for outputting the information, such as a control signal, to the monitor (1b) by adding the information to one of the video signal, the horizontal sync signal and a vertical signal, and a monitor (1b) for detecting and recovering the control signal (figs. 1-3, col. 4, line 56 through col. 5, line 6), thereby obviously transmitting information from the computer to the monitor without the use of a communication line. It would have been obvious to a person of ordinary skill in the art at the time of the invention was made to utilize Arai's teaching above in the Wu reference, i.e., the computer transmitting the display type information carried by one of the video signal, the horizontal sync signal and a vertical signal, and the monitor detecting and recovering the display type information, because this would avoid the use of the communication interface, thereby reducing the cost of the apparatus. Therefore, it would have been obvious to one skilled in the art at the time of the invention was made to combine Arai with Wu to obtain the invention as specified in the claims above.

Regarding to claims 33, 35 and 41 as respectively applied to claims 4, 5 and 14 above, Wu further discloses a display code including a recognition code (the address of information) and a corresponding data (data of information), see col. 7, lines 10-20. These claims are rejected for the reason as set forth above.

Art Unit: 2673

Regarding to claim 15 as applied to claim 14 above, Arai further teaches the computer comprising a control signal addition circuit (16) for synchronizing the transmitted data with the vertical sync signal (figs. 1-3). This claim is rejected for the reason as set forth above.

Regarding to claims 16, 34 and 36 as respectively applied to claims 14, 4 and 5 above, Arai further teaches the vertical sync signal comprising a clock pulse (the description at col. 6, lines 39-44, discloses the vertical sync signal including a pulse having a leading edge), for recognizing the transmitted information, further see figs. 4-5 and the description at col. 5, lines 39-67. These claims are rejected for the reason as set forth above.

Regarding to claim 13 as applied to claim 12 above, since all the limitations reciting in this claim are read in the combination of claim 12 and 15 above, this claim is therefore rejected for same reasons as set forth in claims 12 and 15.

Regarding to claim 29 as applied to claim 1, since all the limitations reciting in this claim are read in the combination of claims 1 and 34 above, this claim is therefore rejected for same reasons as set forth in claims 1 and 34.

Regarding to claim 32 as applied to claim 2, since all the limitations reciting in this claim are read in the combination of claims 2 and 36 above, this claim is therefore rejected for same reasons as set forth in claims 2 and 36.

Regarding to claim 38 as applied to claim 8, since all the limitations reciting in this claim are read in the combination of claims 8 and 16 above, this claim is therefore rejected for same reasons as set forth in claims 8 and 16.



Regarding to claim 40 as applied to claim 12, since all the limitations reciting in this claim are read in the combination of claims 12 and 16 above, this claim is therefore rejected for same reasons as set forth in claims 12 and 16.

Regarding to claim 43 as applied to claim 26, since all the limitations reciting in this claim are read in the combination of claims 26 and 34 above, this claim is therefore rejected for same reasons as set forth in claims 26 and 34.

***Allowable Subject Matter***

11. Claims 17-19 are allowed.
12. Claims 27 and 28 are objected (see the claim objections above), but would be allowable if overcome the objections above.
13. The following is a statement of reasons for the indication of allowable subject matter: the claimed invention is directed to an apparatus and a method for interfacing video information in a computer system. The independent claim 17 identifies the uniquely distinct features, “dividing the display type information of R, G, B video signals and embedding the divided display type information into a horizontal sync signal and at least one of the R, G, and B signals, respectively”, and the independent claim 27 identifies the uniquely distinct features, “dividing the display type information of a video signal and embedding the a clock pulse for recognizing the display type information in the vertical sync signal”. The closest arts, Wu, as discussed above, discloses the display type information embedded in the communication line, and Arai, as discussed above, discloses the display type information embedded in the video signal R, G or B, a horizontal synchronizing signal Hs, or a vertical synchronizing signal Vs, either singularly or in combination, fail to anticipate or render the above underlined limitations obvious.

***Response to Arguments***

14. Applicant's arguments with respect to all independent claims have been considered but are moot in view of the new ground(s) of rejection. See the new ground of rejection above.

***Conclusion***

15. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jimmy H. Nguyen whose telephone number is (703) 306-5422. The examiner can normally be reached on Monday - Thursday, 8:00 a.m. - 5:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bipin Shalwala can be reached at (703) 305-4938.

**Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks

Art Unit: 2673

Washington, D.C. 20231


**or faxed to:**

**(703) 872-9314 (for Technology Center 2600 only)**

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive,  
Arlington, VA, Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding  
should be directed to the Technology Center 2600 Customer Service Office whose telephone  
number is (703) 306-0377.

JHN  
February 2, 2003

  
Amare Mengistu  
Primary Examiner